

message identifies one or more of said plurality of pre-determined candidate character sets capable of expressing each of the characters of the message; and

performing a logical operation among said identified pre-determined candidate character sets to determine said pre-determined candidate character sets best suited to express the message.

33. (New) The method of claim 32, further comprising a step of computing a weighted total number of characters matched to each of said plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched.

34. (New) The method of claim 33, further comprising a step of selecting a best match between the characters of the message and said plurality of pre-determined candidate character sets by identifying one or more of said plurality of pre-determined candidate character sets corresponding to a pre-determined value for the weighted total number of characters matched. --

REMARKS

Upon entry of the foregoing Amendment, claims 1, 8, 15, 22, and 29-34 are pending in the application. Claims 8, 15, and 22 are amended. New claims 29-34 are added. In view of these amendments and following remarks, reconsideration and allowance of all the claims pending in the application are respectfully requested.

Examiner Interview

Applicants thank Examiner Edouard for extending the courtesy of an Examiner Interview to Applicants' representatives on February 12, 2003. During the Interview, Applicants representatives discussed various features of the claimed invention in light of the cited references.

Non-Statutory Double Patenting Rejections

Claims 1, 8, 15, and 22 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting. Applicants respectfully traverse this rejection. Furthermore, Applicants respectfully request that this rejection be held in abeyance until otherwise patentable subject matter is identified.

Rejection Under 35 U.S.C. §103(a)

Claims 1, 8, 15, and 22 stand rejected under 35 U.S.C. 103 (a) as allegedly being unpatentable over U.S. Patent Number 5,548,507 issued to Martino et al. (“Martino”) in view of U.S. Patent Number 6,157,905 issued to Powell (“Powell”), and further in view of U.S. Patent Number 5,873,111 issued to Edberg (“Edberg”). Applicants respectfully traverse this rejection as Martino, Powell, and Edberg, alone or in combination with one another, do not teach or suggest the claimed invention.

Applicants note that the Examiner’s rejection fails to address each feature of the claimed invention. In particular, the Examiner does not address the features of “computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched” and “selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched” as set forth in independent claims 1, 8, 15, and 22. For at least this reason, Applicants submit that the rejection of claims 1, 8, 15, and 22 should be withdrawn.

In addition, the references relied upon by the Examiner do not teach or suggest the feature of “evaluating characters in a message against a character table bank, the character table bank comprising a plurality of pre-determined candidate character sets” as set forth in claim 1. As is best understood, Martino teaches evaluating words in a message against a predetermined statistical model to determine a corresponding language for the message. In contrast, the invention is directed to evaluating characters in a message. For at least this reason, Martino is deficient in teaching or suggesting various features set forth in independent claim 1.

The Examiner relies on Powell to teach these aspects of the invention (*See* Page 3, lines 10-14 of the Office Action). As best understood, Powell teaches evaluating characters of an input document using statistical occurrence of data values for the characters in a sample document (*See* Abstract, Fig. 2, Col. 5 line 62 through col. 6 line 35 of Powell). Thus, at best, the combination of Martino and Powell teaches determining a language based on statistical occurrence of various characters in a message. However, this combination of Martino and Powell does not teach or suggest the feature of “evaluating characters in a message against a character table bank, the character table bank comprising a plurality of pre-determined candidate character sets corresponding to a plurality of languages.”

Edberg does not make up for the deficiencies of Martino and Powell cited above. Edberg discloses a system for collation in a processing system of a variety of distinct sets of information. Apparently, the Examiner relies on the descriptions in Edberg to “a collation object within an object database with collation information organized in a table in such a way as to facilitate a selection of an intersection of a character attribute with any other character attribute in the table” to teach this feature (*See* Col. 6, lines 39-47 of Edberg). However, the table in Edberg is not a character table bank comprising a plurality of pre-determined candidate character sets as set forth in claim 1. In contrast, the table in Edberg is merely a table comprising collation information. Therefore, Applicants respectfully submit that Martino, Powell, and Edberg, alone and in combination with one another, are deficient because they fail to teach or suggest the feature of “evaluating characters in a message against a character table bank, the character table bank comprising a plurality of pre-determined candidate character sets corresponding to a plurality of languages.” For at least this reason, Applicants respectfully submit that claims 1 is patentable over Martino in view of Powell, and further in view of Edberg. Claims 8, 15, and 22 also include similar feature. Therefore, Applicants respectfully submit that claims 8, 15, and 22 are also patentable over Martino in view of Powell, and further in view of Edberg for at least the foregoing reasons.

Furthermore, claim 8 has been amended to recite “character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said

character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets capable of expressing said particular character” to further define the invention. At least this feature is not taught or suggested by Martino, Powell, Edberg, alone or in combination with one another. For at least this reason, Applicants respectfully submit that claim 8 is patentable over cited references. Claims 15, and 22 also include similar feature. Therefore, Applicants respectfully submit that claims 15, and 22 are also patentable over cited references for at least the foregoing reasons.

New claim 29 includes the features of “receiving a plurality of characters, each character associated with one or more languages; providing each character in said plurality of characters to a character table bank; receiving at least one indicator from said character table bank, wherein said character table bank receives a character as input and provides at least one indicator corresponding to a pre-determined character set in which said character can be rendered; and comparing said at least one indicator for each character to determine a character set in which said plurality of characters can be rendered.” The combination of these features are not taught or suggested in Martino, Powell, Edberg, alone or in combination with one another. Applicants respectfully submit that new claim 29 is patentable for at least the foregoing reasons.

New claim 32 includes the features of “accepting an input of the message, wherein the message includes a plurality of characters associated with one or more languages; individually comparing each of the characters of the message to said plurality of pre-determined candidate character sets in the character table bank to determine a match between each of the characters of the message and one or more of said plurality of pre-determined candidate character sets, wherein said comparing each of the characters of the message identifies one or more of said plurality of pre-determined candidate character sets capable of expressing each of the characters of the message; and performing a logical operation among said identified pre-determined candidate character sets to determine said pre-determined candidate character sets best suited to express the message.” This combination of features are not taught or suggested in Martino, Powell, Edberg, alone or in combination with one another. Applicants respectfully submit that new claim 32 is

patentable for at least the foregoing reasons.

New claims 30, 31, 33, and 34 each depend from and add additional features to one of new independent claims 29 and 32. Because Martino, Powell, Edberg, alone or in combination with one another, do not teach or suggest each of the features recited in the new independent claims, Applicants respectfully submit that dependent claims 30, 31, 33, and 34 are also patentable for at least the foregoing reasons.

CONCLUSION

Applicant respectfully submits that this application is in condition for allowance and such disposition is earnestly solicited. If the Examiner believes that a telephone conference or interview would advance prosecution of this application in any manner, the undersigned stands ready to conduct such a conference at the convenience of the Examiner.

It is believed that no other fees are due in connection with filing this Response. In the event that it is determined that fees are due, however, the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0311.

Respectfully submitted,

Mintz Levin Cohn Ferris Glovsky and Popeo, PC

Dated: February 21, 2003

By: 

Rick A. Toering
Registration No. 43,195

For: James G. Gatto
(Registration No. 32,694)

12010 Sunset Hills Road, Suite 900
Reston, VA 20190
Telephone (703) 464-4800
Facsimile (703) 464-4895



APPENDIX A – VERSION WITH MARKINGS TO SHOW CHANGES MADE IN THE CLAIMS:

8. (Thrice Amended) A system for evaluating characters in a message against a character table bank, said [the] character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets capable of expressing said particular character [comprising one or more pre-determined candidate character sets of plurality of languages], the system comprising:

an input interface to accept an input of the message, wherein the message includes a plurality of [comprises one or more] characters in one or more [of the plurality of] languages; and

a processor unit, connected to the input interface, the processor unit evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character table bank to determine a match between the plurality of pre-determined candidate character sets and the message, computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched, and selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched, wherein the processor unit evaluating [comparing each of the characters of] the message tests the ability of each of the plurality of pre-determined candidate character

sets to express that character by performing a logical operation [mask] between the bit masks that identify one or more of the plurality of pre-determined candidate character sets expressing each of the characters of the message [a universal code for that character and an indicator in the character table bank indicating whether each of the plurality of pre-determined candidate character sets contains that character].

15. **(Thrice Amended)** A system for evaluating characters in a message against a character table bank, said [the] character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets capable of expressing said particular character [one or more pre-determined candidate character sets of plurality of languages], the system comprising:

input interface means to accept an input of the message, wherein the message includes a plurality of [comprises one or more] characters in one or more [of the plurality of] languages; and

processor means, connected to the input interface means, the processor means evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character table bank to determine a match between the plurality of pre-determined candidate character sets and the message, computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched, and selecting a best match between the message and

the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched, wherein the processor unit evaluating [comparing each of the characters of] the message tests the ability of each of the plurality of pre-determined candidate character sets to express that character by performing a logical operation [mask] between the bit masks that identify one or more of the plurality of pre-determined candidate character sets expressing each of the characters of the message [a universal code for that character and an indicator in the character table bank indicating whether each of the plurality of pre-determined candidate character sets contains that character].

22. **(Thrice Amended)** A storage medium for storing machine readable code, the machine readable code being executable to evaluate characters in an electronic message to a character table bank, said [the] character table bank including a plurality of bit masks, said character table bank indexed by a particular character, said character table bank producing one of the bit masks that identifies one or more of a plurality of pre-determined candidate character sets capable of expressing said particular character [one or more pre-determined candidate character sets of plurality of languages], the medium comprising the steps of:

- a) accepting an input of the message, wherein the message includes a plurality of [comprises one or more] characters in one or more [of the plurality of] languages;
- b) evaluating the message by individually comparing each of the characters of the message to the plurality of pre-determined candidate character sets in the character

table bank to determine a match between the plurality of pre-determined candidate character sets and the message, wherein the evaluating [step of comparing each of the characters of] the message tests the ability of each of the plurality of pre-determined candidate character sets to express that character by performing a logical operation [mask] between the bit masks that identify one or more of the plurality of pre-determined candidate character sets expressing each of the characters of the message [a universal code for that character and an indicator in the character table bank indicating whether each of the plurality of pre-determined candidate character sets contains that character];

c) computing a weighted total number of characters matched to each of the plurality of pre-determined candidate character sets by applying a weighting factor to the total number of characters matched; and

d) selecting a best match between the message and the plurality of pre-determined candidate character sets by identifying the candidate character set corresponding to a pre-determined value for the weighted total number of characters matched.